STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

July 14, 2005

Jeffrey R. Holmstead
Assistant Administrator
U.S. Environmental Protection Agency Headquarters
Ariel Rios Building, 6101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Connecticut Request for Reconsiderations Associated with the Clean Air Interstate Rule (CAIR)

Dear Assistant Administrator Holmstead:

The Connecticut Department of Environmental Protection (CT DEP) has been carefully analyzing the U.S. Environmental Protection Agency's (EPA's) *Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone* (CAIR) (70 Fed. Reg. 25162, May 12, 2005). In so doing, CT DEP staff have identified general concerns about the approach CAIR employs and the resulting emissions reductions as well as specific concerns about the method and data EPA used to calculate Connecticut's CAIR ozone season NOx budget and EPA's understanding of the units to which CAIR applies.

As you know, there was no opportunity for States to review and comment on the method used to determine the state budgets themselves. Therefore, we would expect that EPA will consider and make technical corrections to Connecticut's CAIR ozone season NOx budget based on the information provided in this letter.

General Concerns About CAIR

CT DEP has three general concerns about CAIR, which center on the adequacy of the emission reductions, the fuel adjustment factor and the "highly cost effective standard", as follows:

- ***Inadequate reductions.*** Recognizing that each state must take all appropriate actions to address its ozone contributions, EPA finalized CAIR precisely for the purpose of addressing downwind transport that contributes significantly to nonattainment in satisfaction of Clean Air Act Section 110(a)(2)(D). However, the CAIR reductions fall well short of the reductions necessary, and we have found available to address 8-hr ozone/precursor transport. CT DEP will address this issue in more detail as we move through the process of addressing CAIR and meeting the intended goals.
- ***Fuel adjustment factor.*** A second general concern regarding CAIR is the application of a fuel adjustment factor (FAF) to the final budget determinations. The FAF in effect "penalizes" states that burn cleaner fuels by lowering such states' CAIR budgets and "rewards" states that burn dirtier fuels by increasing such states' CAIR budgets. The FAF is particularly troublesome given the inadequate notice of its application in the final CAIR.
- ***Highly cost effective standard.*** Finally, CT DEP disagrees with the assertion that the emission reductions requirements assigned to the States need only be based on control measures known to be "highly cost effective" for electric generating units (EGUs). Given the wide availability of cost effective controls, a more appropriate cost standard applied across the CAIR region would enable the CAIR program to more likely reach the intended goal of reducing transport, as necessary to attain the 8-hour ozone national ambient air quality standard.

Despite these general concerns about the final rule, we recognize the need to move forward to implement CAIR and request your assistance on the following three issues in order to do so.

- ***Potential Applicability of CAIR to Municipal Waste Combustors (MWCs).*** As published, CAIR applies to municipal waste combustor (MWC) units attached to a generator with a capacity greater than 25 MW. However, these MWC units are not NOx SIP Call units, and therefore EPA did not take into account the emissions from the MWCs in developing Connecticut's CAIR budget. While EPA staff have indicated that a rulemaking will be forthcoming to exempt MWC units from CAIR, if such an action does not take place, EPA should re-calculate Connecticut's CAIR budget (and all other states with CAIR applicable MWCs), taking the MWCs into consideration.

- ***Use of EPA's NOx SIP Call Budget Finalized in 1999 as the Basis for Connecticut's CAIR Ozone Season NOx Budget***. Connecticut's CAIR ozone season NOx budget is based on EPA's 1999 NOx SIP Call Budget that was never used in implementing the NOx SIP Call budget program in Connecticut. CT DEP urges EPA to revisit the derivation of Connecticut's CAIR ozone season NOx budget and consider allocating a more appropriate CAIR budget for Connecticut, consistent with the concerns that led to the reallocation of the 1999 NOx SIP Call Budget among Connecticut, Massachusetts and Rhode Island through a Memorandum of Understanding.

- ***Discrepancies Between the Sources EPA and CT Have Identified as Subject to CAIR.*** At the June 1, 2005 CAIR workshop in New York City, one of EPA's presentation slides identifies 56 potential EGUs in Connecticut's CAIR seasonal program and four potential non-EGUs in the Connecticut CAIR seasonal program. However, EPA's definition of EGU in CAIR suggests that there are 32 EGUs (including Algonquin Power, Capitol District and AES Thames) and 27 small/non-EGUs. EPA indicated that states should provide notification if said presentation slide is inaccurate. See attached Appendix with accurate information.

CT DEP is hopeful that you will agree to the need to revisit Connecticut's CAIR ozone season NOx budget calculation method and final value and that EPA will work with us to take into account the information provided here. In addition, to provide the necessary information for planning and the required 2006 CAIR compliance plan filing, EPA should expeditiously provide information regarding the applicability issues.

If you or members of your staff have any questions regarding this letter, please do not hesitate to contact me or Anne Gobin, Chief, Bureau of Air Management at 860-424-3026. Thank you.

Sincerely,

Jane K. Stahl
Deputy Commissioner

cc: Gina McCarthy
Sam Napolitano
Robert Varney

Connecticut Department of Environmental Protection
Attachment
CAIR Budget Calculation Issues
7/11/2005

Use of EPA's NOx SIP Call Budget Finalized in 1999 as the Basis for Connecticut's CAIR Ozone Season NOx Budget

Connecticut's ozone season NOx budget in EPA's final NOx SIP Call rule was predicated on 1998 Integrated Planning Model (IPM) findings that there would be negative electric generating unit (EGU) growth (i.e., the shutdown of operating units and no new unit construction) in Connecticut through 2006. After publication of the final NOx SIP Call rule, Connecticut approached EPA with concerns about the size of the EGU portion of Connecticut's SIP Call budget due to the inaccuracies of forecasting new growth using IPM on such a small geographic scale. EPA, Connecticut, Massachusetts and Rhode Island agreed as to the need to reallocate the EGU budgets for all three states, and, in 1999, signed a Memorandum of Understanding (MOU) that agreed to redistribute the EGU portion of the combined budget and the combined compliance supplement pool for the three states. The MOU increased Connecticut's final NOx SIP Call budget and decreased Massachusetts' and Rhode Island's final NOx SIP Call budgets. Thus, through this MOU budget adjustment, EPA acknowledged that the 1998 IPM run was not appropriate to a geographic area as small as Connecticut.

Actual data show that, indeed, the 1998 IPM run was faulty in predicting negative EGU growth in Connecticut. While three units totaling 194 MW did cease operations in 1998 and 1999[1] four new plants totaling 1926 MW have commenced operations in Connecticut since 1998/1999.[2] While the use of the IPM growth rates is troublesome for its inaccuracies -- inaccuracies that were previously acknowledged by EPA -- the use of growth rates is also contrary to EPA's treatment of other state's CAIR budget development. In CAIR, EPA remarks concerning state budget development "...that methods involving State-specific growth rates present certain challenges due to the inherent difficulties in predicting State-specific growth in heat input over a lengthy period, especially for jurisdictions that are only a part of a larger regional electric power dispatch region."[3] The rule further states that " . . .setting budgets using a heat input approach, without a growth adjustment, is fair, would be simpler and would involve less risk of resulting litigation."[4] Nonetheless, EPA used growth rates inherent in IPM in choosing Connecticut's CAIR ozone season NOx budget. Since EPA, Connecticut, Massachusetts and Rhode Island previously acknowledged that the three-state MOU rectified an inherent problem in the original NOx SIP Call budgets, the MOU budget numbers, instead of the NOx SIP Call budget numbers, should have been used in EPA's CAIR budget calculations.

To determine Connecticut's NOx ozone season budget in the final CAIR, EPA considered two separate budgets: (1) a budget calculated in accordance with the methodology described in CAIR; and (2) Connecticut's NOx SIP Call budget, adjusted to take into account only CAIR-defined units but *not adjusted to reflect the MOU budget that replaced the NOx SIP Call budget*. EPA chose the lower value -- the NOx SIP Call derived number adjusted to remove EGUs < 25 MW, but not adjusted per the MOU (2559 tons) -- as the final CAIR ozone season budget. Connecticut's final CAIR ozone season NOx budget also differed substantially from that in the proposed rule, which was calculated using yet a

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1 The three units that shut down were South Meadows 15 (40 MW), Bridgeport Harbor 1 (85 MW) and Middletown 1 (69 MW).

2 The four new EGU facilities are Bridgeport Energy (340 MW), Milford Power (544 MW), Wallingford Energy (250 MW) and Lake Road Generating (792 MW).

3 70 FR 25231.

4 Id.

different method. Therefore, CT DEP had no formal opportunity to comment on the revised methodology or the final Connecticut budget size.

CT DEP urges EPA to revisit the derivation of Connecticut's CAIR ozone season NOx budget and consider allocating a more appropriate CAIR budget for Connecticut, while maintaining the CAIR regionwide budget.

Discrepancies Between the Sources EPA Has Identified as Subject to CAIR and the Sources CT DEP Has Identified

EPA's original NOx SIP Call budget for Connecticut is also inappropriate for use as a CAIR budget because it:

- Fails to include many of Connecticut's finalized NOx SIP Call program peaking units[5] and industrial units[6] which together totaled approximately 193 tons in 2004;
- Includes units that are not in Connecticut's finalized NOx SIP Call program[7] or are retired[8], together totaling approximately 122 tons; and
- Fails to include as existing units Bridgeport Energy's units, which became operational in 1998 and1999.

CT DEP suggests that EPA resolve these discrepancies, taking into consideration the information provided herein.

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5 Peaking Units: Bridgeport 4, Cos Cob 11 & 12, Norwalk 10, So. Meadow 12A & 12B, Torrington Terminal, Middletown 10, Branford 10, Devon 10 and Tunnel.

6 Industrial Units: Sprague and Pfizer.

7 Units not in NOx SIP Call: Waste Mgmt/New Milford Landfill, G. Fox Cogen. Proj. and Hartford Hospital CCF.

8 Retired Units: Pierce 2 & 3, English 13 and 14, Middletown 1 and Bridgeport Harbor 1.

Sources CTDEP Identifies as Subject to CAIR
(Includes small EGU and non-EGU NOx SIP Call sources)

ACCOUNT NAME	STACK/UNIT ID	CAIR DESIGNATION
AES Thames	UNITA	EGU
AES Thames	UNITB	EGU
Algonquin Power Windsor Locks, LLC	GT1	EGU
Branford	10	small EGU
Bridgeport Energy	BE1	EGU (became operational in 1998/1999)
Bridgeport Energy	BE2	EGU (became operational in 1998/1999)
Bridgeport Harbor Station	BHB2	EGU
Bridgeport Harbor Station	BHB3	EGU
Bridgeport Harbor Station	BHB4	small EGU
Capitol District Energy Center	GT	EGU
Cos Cob	10	small EGU
Cos Cob	11	small EGU
Cos Cob	12	small EGU
Devon	7	EGU
Devon	8	EGU
Devon	10	small EGU
Devon	11	EGU
Devon	12	EGU
Devon	13	EGU
Devon	14	EGU
Franklin Drive	10	small EGU
Lake Road Generating Company	LRG1	new EGU (became operational after 1/1/01)
Lake Road Generating Company	LRG2	new EGU (became operational after 1/1/01)
Lake Road Generating Company	LRG3	new EGU (became operational after 1/1/01)
Middletown	2	EGU
Middletown	3	EGU
Middletown	4	EGU
Middletown	10	small EGU
Milford Power	CT01	new EGU (became operational after 1/1/01)
Milford Power	CT02	new EGU (became operational after 1/1/01)
Montville	5	EGU
Montville	6	EGU
New Haven Harbor	NHB1	EGU
Norwalk Harbor Station	1	EGU
Norwalk Harbor Station	2	EGU
Norwalk Harbor Station	10	small EGU
Norwich	TRBINE	small EGU
Pfizer	5	non-EGU
Pfizer	8	non-EGU
Pratt & Whitney, East Hartford	1	non-EGU (exempt cogen under CAIR, but is in NOx Budget Program)
South Meadow Station	11A	small EGU
South Meadow Station	11B	small EGU
South Meadow Station	12A	small EGU
South Meadow Station	12B	small EGU
South Meadow Station	13A	small EGU
South Meadow Station	13B	small EGU
South Meadow Station	14A	small EGU
South Meadow Station	14B	small EGU
Sprague Paperboard - Sprague Mill	1	non-EGU
Torrington Terminal	10	small EGU
Tunnel	10	small EGU
Wallingford Energy	CT01	new EGU (became operational after 1/1/01)
Wallingford Energy	CT02	new EGU (became operational after 1/1/01)
Wallingford Energy	CT03	new EGU (became operational after 1/1/01)
Wallingford Energy	CT04	new EGU (became operational after 1/1/01)
Wallingford Energy	CT05	new EGU (became operational after 1/1/01)
Waterside Power	4	small EGU (NOx Budget Program source that became operational after 1/1/01)
Waterside Power	5	small EGU (NOx Budget Program source that became operational after 1/1/01)
Waterside Power	6	small EGU (NOx Budget Program source that became operational after 1/1/01)

Totals: 22 EGUs, 10 new EGUs, 23 small EGUs, 4 non-EGUs,

Note: This list does not include units presently shut down and/or retired.

8-Jul-05